

#### FAAM BAe-146 T-REX data

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## Preliminary results: IOP-6



#### Flight B180: Morning flight (local time)

#### 1649-2036 UTC 25 March

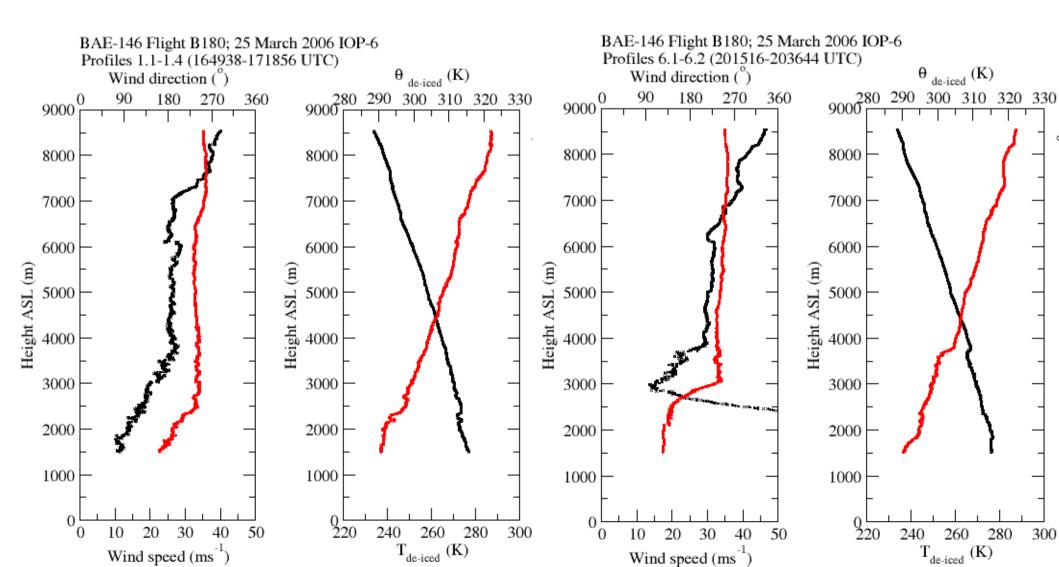
- Upstream profiles show no significant inversion.
- The maximum observed peak-to-trough amplitude in vertical velocity is ~10 m/s. The wave activity is greatest at 19 kft and decays above this.
- The wave motion is fairly steady throughout the flight, though some legs show evidence for a downwind phase propagation during the flight.
- In general the wave amplitude on the north and south legs is comparable.

## IOP-6 Flight B180 upwind profiles



Start of flight

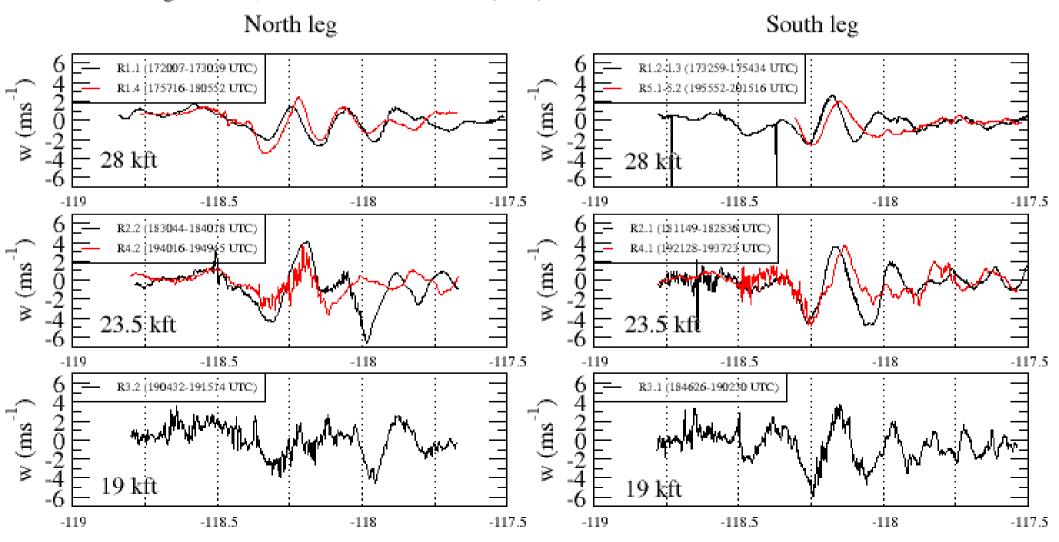
### End of flight



## IOP-6: Flight B180 race tracks



BAE-146 Flight B180; 25 March 2006 IOP-6 (R14)



## Preliminary results: IOP-6



# Flight B181: Afternoon flight (local time) 2212-0155 UTC 25/26 March

- Very weak temperature inversion present in upstream profile at end of flight (~1 K at 4.2 km). This was absent at start of flight.
- Larger vertical velocities are observed at 28 kft (9 ms<sup>-1</sup> peak-to-trough) during this flight than the previous flights. The wavelength is also slightly longer.
- There is a marked downwind shift of the large vertical velocity minima between flights B180 and B181. This pattern holds at all flight levels and for both northern and southern legs.
- In general the wave amplitude is slightly larger on the southern legs (esp. at 23.5 kft).
- The flow is turbulent at 19 kft along the southern track above the Sierras.

## IOP-6: Flight B181 race tracks



BAE-146 Flight B181; 25/26 March 2006 IOP-6 (R14)

